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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,599	12/29/2003	Jae-wan Kim	8021-173 (SS-19015-US)	1606

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EXAMINER

NGUYEN, HAI L

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

CA

Office Action Summary	Application No. 10/750,599	Applicant(s) KIM, JAE-WAN	
	Examiner Hai L. Nguyen	Art Unit 2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>29 December 2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figure 14 is objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "M2" has been used to designate both transistors. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The abstract of the disclosure is objected to because of the following informalities: page 9, line 20, "switche" should be changed to --switches--. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are the structural and/or functional connections between the following elements: a filter and a duty ratio controller.

5. Claims 5-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitations “the first impedance component” and “the switch” in lines 1-2. There are insufficient antecedent basis for these limitations in the claim.

Claim 6 is indefinite because the limitation “a second impedance component”, on line 2, lacks antecedent basis since there is no “first impedance component”. Claim 7 is similar rejected.

Claim 8 recites the limitation “the first impedance component” in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 9 recites the limitation “the first” in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation “the duty control signal” in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 11-13 recite the limitations “the switch” in line 1. There are insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 15-18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Shibata (US 5,473,278).

With regard to claim 15, Shibata discloses in Figs. 2-3 a device for controlling a frequency response comprising a filter (5, 6, 7), wherein the filter generates an output signal (33) after removing a frequency from an input signal (31), wherein a frequency response of the filter varies in response to a duty ratio of a duty-controlled dock signal (see column 3, lines 1-45); and a duty ratio controller (40), wherein the duty ratio controller generates the duty-controlled dock signal (C).

With regard to claim 16, the filter further comprises an impedance component (6); and a switch (5) that is serially connected to the impedance component, wherein the switch is switched on or off by the duty-controlled clock signal.

With regard to claim 17, the duty ratio controller receives a clock signal (31/A) and generates the duty-controlled clock signal (C) in response to a duty control signal (B).

With regard to claim 18, the switch (5) is positioned on a transmission path.

With regard to claim 20, the references also meet the recited limitation in this claim.

8. Claims 15 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Ford (US 4,114,117).

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With regard to claim 15, Ford discloses in Figs. 1-3 a device for controlling a frequency response comprising a filter, wherein the filter generates an output signal (at output terminal of 6) after removing a frequency from an input signal, wherein a frequency response of the filter varies in response to a duty ratio of a duty-controlled dock signal (see column 2, line 28 through column 3, line 64); and a duty ratio controller (see column 3, lines 1-5), wherein the duty ratio controller generates the duty-controlled dock signal (A).

With regard to claim 19, the switch (6A) is positioned on a transmission path between an input node and an output node of the device when another transmission path (5) exists between an input node and an output node of the device.

Conclusion

9. Regarding claims 1-14, the patentability thereof cannot be determined because of their indefiniteness.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Khoury (US 5,345,119) is cited as of interest because it discloses a continuous-time filter tuning with a delay-locked-loop in mass storage systems or the like circuit.


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai L. Nguyen whose telephone number is 571-272-1747 and Right Fax number is 571-273-1747. The examiner can normally be reached on Monday-Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The official fax phone number for the organization where this application or proceeding is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1562.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HLN 
February 4, 2005


TIMOTHY P. CALLAHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800